

MATERIALS TESTING MANUAL TABLE OF CONTENTS

Introduction (July 15, 2005)
Changes in the Materials Test Manual (July 15, 2005)
Glossary of Terms (July 15, 2005)

SERIES 100 SAMPLING**

ARIZ 104c	Sampling Bituminous Mixtures
ARIZ 105c	Sampling Soils and Aggregates
ARIZ 108	Sampling Hydrated Lime and Lime Products
ARIZ 109	Sampling Metallic Materials
ARIZ 110	Sampling Miscellaneous Materials

** The above Arizona Test Methods, and also commonly used AASHTO procedures in this category, are shown on Series 100 Cover Sheet (July 15, 2005).

SERIES 200 SOILS AND AGGREGATES**

ARIZ 201c	Sieving of Coarse and Fine Graded Soils and Aggregates
ARIZ 205c	Composite Grading
ARIZ 210b	Specific Gravity and Absorption of Coarse Aggregate
ARIZ 211d	Specific Gravity and Absorption of Fine Aggregate
ARIZ 212e	Percentage of Fractured Coarse Aggregate Particles
ARIZ 220	Determination of Cement Content Required for Cement Treated Mixtures
ARIZ 221	Moisture-Density Relations of Cement Treated Mixtures
ARIZ 222b	Rock Correction Procedure for Maximum Density Determination of Cement Treated Mixtures
ARIZ 223	Field Density of Cement Treated Mixtures by Sand Cone Method or by Rubber Balloon Method
ARIZ 225a	Maximum Dry Density and Optimum Moisture of Soils by Proctor Method A
ARIZ 226	Maximum Density and Optimum Moisture of Soils - Methods C and D
ARIZ 227c	Rock Correction Procedure for Maximum Dry Density and Optimum Moisture Content Determination

ARIZ 229a	Calibration of Standard Sand and Sand Cone
ARIZ 230	Field Density by the Sand Cone Method
ARIZ 232a	Moisture-Density Relationship Using Typical Moisture-Density Curves (One Point Proctor) Method A
ARIZ 233c	Flakiness Index of Coarse Aggregate
ARIZ 235	Density and Moisture Content of Soil and Soil-Aggregate Mixtures by the Nuclear Method
ARIZ 236b	Determining pH and Minimum Resistivity of Soils and Aggregates
ARIZ 237b	Determining pH and Soluble Salts of Soils
ARIZ 238a	Percent Carbonates in Aggregate
ARIZ 240a	Sieve Analysis and Separation of Salvaged AC Pavement Particles for Recycled Asphaltic Concrete
ARIZ 241a	Compressive Strength of Molded Cement Treated Base or Soil-Cement Specimens
ARIZ 242a	Sand Equivalent Test for Mineral Aggregate for Asphaltic Concrete Friction Course
ARIZ 244	Artificial Grading of Mineral Aggregate
ARIZ 245	Maximum Dry Density and Optimum Moisture of Soils by Proctor Alternate Method D
ARIZ 246	Moisture-Density Relationship using Typical Moisture-Density Curves (One Point Proctor) Alternate Method D
ARIZ 247	Particle Shape and Texture of Fine Aggregate Using Uncompacted Void Content
ARIZ 248	Alternate Procedures for Sieving of Coarse and Fine Graded Soils and Aggregates
ARIZ 249	Remolded Ring Samples for Direct Shear, Swell, and Consolidation
ARIZ 251	Combined Coarse and Fine Aggregate Specific Gravity and Absorption

** The above Arizona Test Methods, and also commonly used AASHTO procedures in this category, are shown on Series 200 Cover Sheet (July 15, 2005).

SERIES 300 CONCRETE**

ARIZ 308a	Method of Adjusting Concrete Mixes for Variations in Moisture Content
ARIZ 309a	Testing Impervious Materials and Compounds for Curing Concrete
ARIZ 310a	Measuring Texture Depth of Portland Cement Concrete with Metal Tine Finish

ARIZ 311a	Method of Test for Flow of Grout Mixtures (Flow Cone Method)
ARIZ 314b	Compressive Strength of Cylindrical Concrete Specimens
ARIZ 315	Precast Mortar Blocks Test
ARIZ 317a	Obtaining and Testing Drilled Cores and Sawed Beams of Concrete

** The above Arizona Test Methods, and also commonly used AASHTO and ASTM procedures in this category are show on Series 300 Cover Sheet (December 15, 2006).

SERIES 400 BITUMINOUS MIXTURES**

ARIZ 406c	Moisture Content of Bituminous Mixtures
ARIZ 410c	Compaction and Testing of Bituminous Mixtures Utilizing 101.6 mm (Four Inch) Marshall Apparatus
ARIZ 411	Determination of Transverse Distributor Spread Rate
ARIZ 412a	Density of Compacted Bituminous Mixtures by the Nuclear Method
ARIZ 413	Extraction of Asphalt from Bituminous Mixtures by Soxhlet Extraction
ARIZ 415c	Bulk Specific Gravity and Bulk Density of Compacted Bituminous Mixtures
ARIZ 416d	Preparing and Splitting Field Samples of Bituminous Mixtures for Testing
ARIZ 417b	Maximum Theoretical Specific Gravity of Field Produced Bituminous Mixtures (Rice Test)
ARIZ 421	Bituminous Material Content of Asphaltic Concrete Mixtures by the Nuclear Method
ARIZ 422	Compaction and Testing of Bituminous Mixtures Utilizing 152.4 mm (Six Inch) Marshall Apparatus
ARIZ 424a	Determination of Air Voids in Compacted Bituminous Mixtures
ARIZ 427	Asphalt Binder Content of Asphaltic Concrete Mixtures by the Ignition Furnace Method

** The above Arizona Test Methods, and also commonly used AASHTO procedures in this category, are show on Series 400 Cover Sheet (July 15, 2005).

SERIES 500 BITUMINOUS MATERIALS**

ARIZ 502b	Percentage of Uncoated Particles Using Asphalt Emulsions
ARIZ 504	Vacuum Recovery of Asphalt Emulsion Residue
ARIZ 505a	Asphalt Rejuvenating Agent Residue Insoluble in Petroleum Ether
ARIZ 509a	Rapid Determination of Asphaltenes and Chemical Reactivity of Asphalts

ARIZ 511 Recovery of Asphalt from Extraction Solution
ARIZ 512a Residue by Evaporation

** The above Arizona Test Methods, and also commonly used AASHTO and ASTM procedures and specifications are shown on Series 500 Cover Sheet (July 15, 2005).

SERIES 600 CEMENT AND RELATED MATERIALS**

** Commonly used AASHTO and ASTM procedures in this category are shown on Series 600 Cover Sheet (July 15, 2005).

SERIES 700 CHEMICAL AND SPECIALTY**

ARIZ 702a Testing of Paint, Varnish, Lacquer, and Related Material
ARIZ 714b Sampling and Sieving of Crumb Rubber
ARIZ 719c Heating and Drying Materials in Microwave Oven
ARIZ 725a Tensile Proof Dowel Test
ARIZ 726a Reflectance, Dry Opacity, and Yellowness Index of Traffic Paint
ARIZ 727a Chloride in Hardened Concrete
ARIZ 729a Exchangeable Sodium in Topsoil
ARIZ 730 Geotextile Fabric Permittivity Measurement by the Falling Head Method
ARIZ 732 Calcium Carbonate in Topsoil (Neutralization Potential of Topsoil)
ARIZ 733a Sulfate in Soils
ARIZ 734 Determination of Portland Cement Content in Cement Treated Base Material
ARIZ 735a Testing of Thermoplastic Pavement Marking Material
ARIZ 736a Chloride in Soils
ARIZ 738 Chloride in Concrete Admixtures

** The above Arizona Test Methods, and also commonly used AASHTO and ASTM procedures in this category are shown on Series 700 Cover Sheet (December 15, 2006).

SERIES 800 DESIGN**

ARIZ 801a Evaluation of Profiles
ARIZ 802g Effect of Water on Strength of Compacted Bituminous Mixtures (Immersion Compression Test)

ARIZ 805b	Centrifuge Kerosene Equivalent of Aggregate, Including K-Factor
ARIZ 806e	Maximum Theoretical Specific Gravity of Laboratory Prepared Bituminous Mixtures (Rice Test)
ARIZ 807	Design of Slurry Seal
ARIZ 814a	Design of Asphaltic Concrete Friction Course
ARIZ 815c	Marshall Mix Design Method for Asphaltic Concrete
ARIZ 819a	Design of Exposed Aggregate Seal Coats
ARIZ 822	Determination of Additive or Asphalt Blend Required for Modification of Asphalt Viscosity
ARIZ 825a	Method of Test for Determining the Quantity of Asphalt Rejuvenating Agent Required for an Asphaltic Pavement
ARIZ 829a	Evaluation of Pavement Smoothness

** The above Arizona Test Methods are also shown on Series 800 Cover Sheet (July 15, 2005).

SERIES 900 MATERIALS QUALITY ASSURANCE PROGRAM
(October 1, 1999)

- Appendix A - ADOT System for the Evaluation of Testing Laboratories (June 22, 1999)
- Appendix B - Contractor Testing Included in the Acceptance Decision
- Appendix C - Sampling Guide Schedule

SERIES 1000 CERTIFICATES (July 15, 2005)

APPENDIX

APPENDIX A1	Rounding Procedure (July 15, 2005)
APPENDIX A2	Metric Guide (July 15, 2005)
APPENDIX A3	Equipment Calibration and Verification (July 15, 2005)